WHAT IS CLAIMED IS:

1. An electrostatic discharge protection circuit for protecting an internal circuit of a semiconductor device against an electrostatic discharge, comprising:

an internal circuit connected with a first and a second power source terminal;

a transistor switching a source and a drain connected to the first and the second power source terminal, respectively, in accordance with voltage supplied to a back gate;

a first diode connected between the first power source terminal and the back gate, the first diode supplying a positive discharge voltage generated in the first power source terminal to the back gate;

a second diode connected between the second power source terminal and the back gate, the second diode supplying a positive discharge voltage generated in the second power source terminal to the back gate; and

a voltage-dividing circuit dividing and supplying the discharge voltages to the gate of the transistor, the voltage-dividing circuit controlling ON/OFF operation of a source-drain path of the transition.

2. The electrostatic discharge protection circuit according to claim 1, wherein the transistor comprises:

a first power source terminal side serving as a

source when the positive discharge voltage is supplied from the first power source terminal to the back gate, and

a second power source terminal side serving as a source when the positive discharge voltage is supplied from the second power source terminal to the back gate.

3. The electrostatic discharge protection circuit according to claim 1, wherein the voltage-dividing circuit equally divides the discharge voltage and supplies the voltage to the gate.

4. The electrostatic discharge protection circuit according to claim 1, wherein the voltage-dividing circuit unidirectionally runs a current caused by the discharge voltage.

5. The electrostatic discharge protection circuit according to claim 1, comprising diodes connected between an input/output terminal of the internal circuit and the first and the second power source terminal, respectively, the diodes carrying the discharge voltage produced in the input/output terminal to the first and the second power source terminal, respectively, in the form of an electric current.